Received 06/30/08
DIN 5060
GHL

Clayton, Sr., P.E., Inc.
Civil & Environmental Engineering

June 26, 2008

PN: 03023

Geoffrey Little – Environmental Engineer
Solid Waste Section, NCDENR
1646 Mail Service Center
Raleigh, NC 27699

RE: Dunn Erwin Landfill, Harnett County, NC
C&D Cell Permit Extension Request
Permit # 43-02

Mr. Little:

As you are aware, Harnett County currently operates a C&D cell that is currently located on top of a closed MSW cell. The current permit (# 43-02) expires on July 1, 2008. On behalf of Harnett County, C.T. Clayton, Sr., P.E., Inc., requests an extension of this permit at this time.

Per your request during our meeting with you in March, 2008, we have attached the following documentation to facilitate this request:

- Zoning approval letter.
  Letter dated June 19, 2008 from the Harnett County Planning Department stating that the landfill is properly zoned.
- Resolution Letter.
  Resolution adopted June 16, 2008 by the Harnett County Board of County Commissioners granting prior approval for the permit extension.
- Financial Assurance.
  Letter dated June 25, 2008 from the Harnett County Finance Office documenting the local government financial test.
- Public Notice.
  Announcement and receipt for ad placed in the local newspaper announcing our intention to hold a meeting for public comment on July 14, 2008. Per our telephone conversation, I petition you that this will not cause a delay in the permit extension in light of it being held after the July 1, 2008 deadline. We do not foresee any public involvement as we had zero persons attend our public meeting on the ACM at the Dunn Erwin facility just over two months ago.
- Operations Plan
  An updated operations plan is attached.
- Closure Plan
  An updated closure plan with drawings is attached.

P.O. Box 578
46 W. Washington Street
Coats, NC 27521
Phone: 910-897-7070
Fax: 910-897-6767

Offices located in Coats and New Bern, North Carolina

- Airspace Analysis.
  An airspace analysis & remaining time calculation is attached. Currently, based on a recent topographic survey completed in May 2008 of the C&D cell and the average waste inflow rates for the previous two years, enough air space is available to allow waste to be deposited in the cell until approximately August 2010.
- Additional Information.
  CTC has reviewed the records for the closure of the unlined solid waste landfill that is below the active C&D cell, and found that the 1997 cap installed had a minimum of 18-inches of soil with an average effective permeability of 1×10^{-5} cm/s. However, in some places the cap was constructed to a depth of 30-inches thick to compensate for permeability results that did not meet the 1×10^{-5} cm/s requirement.

Harnett County fully understands and expects to be invoiced the $9,000 Permit Amendment Fee for this permit extension.

Should you have questions concerning this request, please call me directly or Tyrus Clayton at (910) 897-7070.

Sincerely,

Ryan Sadler – Project Manager
C.T. Clayton, Sr., P.E., Inc.

Attachments
cc: file,
C. T. Clayton, Sr., P. E.
Tyrus Clayton, Jr., P.E.
Jerry Blanchard – Harnett County

ZONING APPROVAL LETTER

Harnett
COUNTY
NORTH CAROLINA

Planning Department

www.harnett.org

PO Box 65
108 E. Front St.
Lillington, NC 27546

Ph: 910-893-7525
Fax: 910-814-6459

June 19, 2008

Jerry Blanchard
Harnett County General Services
P.O.Box 940
Lillington, NC 27546

RE: Dunn Erwin Landfill

Dear Mr Blanchard:

The Dunn Erwin Landfill located off Daniels Road is currently zoned RA-30, which is a residential zoning district. A Solid Waste Disposal Landfill is a conditional use in this zoning district. However, if this use was established prior to the adoption of the zoning ordinance it is considered to be a grand fathered use. Therefore, these parcels will be allowed to continue being used in accordance with the Harnett County Zoning Ordinance (Article IV Section 2.0 Continuation of Nonconforming Situations).

If you have any questions, please contact the Planning Department at (910) 893-7525.

Sincerely,

Theresa Jones

Theresa Jones
Planning Technician

RESOLUTION LETTER

DUNN ERWIN CONSTRUCTION AND DEMOLITION LANDFILL RESOLUTION

(RESOLVED), that the Board of County Commissioners of Harnett County, hereby grants prior approval for the issuance of sanitary landfill permit by the Division of Waste Management to Harnett County Dunn Erwin Landfill, said landfill (facility boundary) to as established by Solid Waste Permit NO. 43-02, as shown on the attached map, which is located within the Grove Township. The Board of County Commissioners hereby approves the following items related to this proposed solid waste management facility:

1. The area to be served and population shall consist of the following county:
   a. Harnett County current population: 106,283
2. The facility shall accept land clearing, construction, and demolition debris to be disposed of in the above reference facility in a quantity not to exceed 35,000 tons during any given year that may originate within the service area identified above in item 1.

Adopted, this the 16th day of June, 2008.

Harnett County Board of Commissioners

Beatrice B. Hill, Vice Chairman

Attest:

Kay S. Blanchard
Kay S. Blanchard
Clerk to the Board

FINANCIAL ASSURANCE

Harnett
COUNTY
NORTH CAROLINA

Finance Department

www.harnett.org

PO Box 760
102 East Front Street
Lillington, NC 27546

ph: 910-893-7557
fax: 910-814-2662

June 25, 2008

Ms. Amy Kadrie
Solid Waste Section
DENR - Division of Waste Management
1646 Mail Service Center
Raleigh, NC 27699-1646

Dear Ms. Kadrie:

I am the Finance Officer of the County of Harnett, P.O. Box 760, Lillington, NC 27546. This letter is in support of this unit of local government's use of the financial test to demonstrate financial assurance, as specified in 15A NCAC 13B .1628 (e)(1)(F). This letter is an update of the letter sent on November 1, 2007.

This unit of local government is the owner and operator of the following facilities for which financial assurance for closure, post-closure, or corrective action is demonstrated through the financial test specified in 15A NCAC 13B .1628 (e)(1)(F). The current closure, post-closure, or corrective action cost estimates covered by the test are shown for each facility:

Harnett County Dunn/Erwin C&D Landfill, Permit 4302-CDLF-1998 (active)
Harnett County Landfill, Permit 4302-MSWLF-1988 (inactive)
449 Daniels Road, SR 1724
Dunn, NC 28334

	C&D	**Old Landfill**	**Both**	**Total**
Closure	$310,650	$0	$0	$310,650
Post Closure	0	0	1,065,000	1,065,000
Corrective Action	475,000	0	0	475,000
Total	$785,650	$0	$1,065,000	**$1,850,650**

The fiscal year of this unit of local government ends on June 30th. The figures for the following items marked with an asterisk are derived from this unit of local government's Annual Financial Information Report (AFIR) for the latest completed fiscal year, ended June 30, 2007.

1.	Sum of current closure, post-closure and corrective action cost estimates [total of all cost estimates shown in the paragraph above]	$	1,850,650
2.*	Sum of cash and investments (AFIR Part 7)	$	33,350,830
3.*	Total expenditures (AFIR Part 4 Columns a & b and Part 5 for municipalities or Part 5 excluding educational capital outlays for counties)	$	146,223,763
4.*	Annual debt service (AFIR Part 4 Section I)	$	13,717,220
5.	Assured environmental costs to demonstrate financial responsibility in the following amounts under Division rules:		
	MSWLF under 15A NCAC 13B Section .1600	$	1,850,650
	Hazardous waste treatment, storage and disposal facilities under 15A NCAC 13A.0009	$	0
	Petroleum underground storage tanks under 15A NCAC 2N.0100-.0800	$	0
	PCB commercial storage facilities under 15A NCAC 20.0100 and 15A NCAC 2N.0100	$	0
	Total assured environmental costs	$	1,850,650
6.*	Total Annual Revenue (AFIR Part 2)	$	205,769,708

Circle either "yes" or "no" to the following questions.

7.	Is line 5 divided by line 6 less than or equal to 0.43?	yes/no
8.	Is line 2 divided by line 3 greater than or equal to 0.05?	yes/no
9.	Is line 4 divided by line 3 less than or equal to 0.02	yes/no

I hereby certify that the wording of this letter is identical to the wording specified in 15A NCAC 13B.1628(e)(2)(G) as such rules were constituted on the date shown immediately below. I further certify the following (1) that the unit of local government has not operated at a total operating fund deficit equal to five percent or more of total annual revenue in either of the past two fiscal years, (2) that the unit of local government is not in default on any outstanding general obligation bonds or long-term obligations, and (3) does not have any outstanding general obligation bonds rated lower than Baa as issued by Moody's, BBB as issued by Standard & Poor's, BBB as issued by Fitch's or 75 as issued by the Municipal Council.

Sincerely,

Vanessa W. Young

Vanessa W. Young
Finance Officer

Cc: Jerry Blanchard, Solid Waste

PUBLIC NOTICE

The Daily Record

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NC 27521

County Plans Public Meeting to Discuss Permit Extension of Dunn/Erwin Construction and Demolition Landfill

Dunn, NC – (June 9, 2008) – The Harnett County Solid Waste Department has scheduled a public meeting in accordance with State Solid Waste Rule .0536 to answer any public questions regarding the extension of the Dunn/Erwin Construction and Demolition Landfill operating permit.

The public meeting will be held July 14, 2008 at the Harnett County Public Library, 601 North Main Street, Lillington, North Carolina, at 9:15AM.

All Harnett County residents are invited to attend.

AIR SPACE ANALYSIS

Dunn Erwin C&D LF Job # 03023

Expected Life of Existing/Active C&D LF

Assume

1. 1,500 lbs * of C&D waste = 1 cyd of landfilled waste under normal compaction
2. Weekly Cover Soil Ratio 8:1 for every 8 cyd of C&D, 1 cyd of weekly cover soil
   8:1 = .125
3. Average waste intake for for life of the cell = 20,367 tons/year **

Design Info

Total Space = 86,000 cyds
2.5ft Final Cover = 20,682 cyds
Airspace = 65,318 cyds

Calculation of Life Expectancy of Existing/Active C&D LF

1) Total volume used per year = 20,367 tons

20,367 tons = 40,734,000 lbs

40,734,000 lbs = 27,156 cyds of C&D trash

27,156 x .125 = 3394.5 cyds of weekly cover

Total Volume Used Per Year = 30,551 cyds/year

2) Time left before design grade (minus 2.5ft final cover) is met

Total Volume = 65,318 cyds

Time Left = 65,318 cyds / 30,551 cyds/year

Time Left = 2.14 years

* Based on compaction calculations for June 2007 - June 2008
** County scalehouse records

By: JWL
Date: 06/20/08

Dunn Erwin C&D LF Job # 03023

Compaction Rate June 2007 to June 2008

Assume

1. Weekly Cover Soil Ratio 8:1 for every 8cyd of C&D, 1 cyd of weekly cover soil
   1 cy / (8 + 1) cy = 0.11
2. Waste intake for study period = 20,367 tons *
3. Volume filled for study period = 22,347 cy **

Calculation

Waste intake for study period =	20,367	tons
20,367 tons =	40,734,000	lbs
Volume used in weekly soil cover =	2,484	cy
Waste volume =	19,863	cy
Compaction =	**2,051**	**lbs/cy**

* Surveys by Streamline Surveying
** County scalehouse records

By: JWL
Date: 06/18/08

OPERATIONS PLAN

OPERATIONS PLAN

DUNN-ERWIN LANDFILL CONSTRUCTION AND DEMOLITION LANDFILL

HARNETT COUNTY, NORTH CAROLINA

Prepared By:

Clayton, Sr., P.E., Inc.
Civil and Environmental Engineering
PO BOX 578
Coats, NC 27521
(910) 897-7070
(910) 897-6767 Fax

CTC PN: 3023
June 2008

OPERATIONS PLAN
CONSTRUCTION AND DEMOLITION LANDFILL

DUNN-ERWIN LANDFILL
HARNETT COUNTY, NORTH CAROLINA

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OPERATIONS PLAN
Dunn-Erwin Landfill Facility
Construction and Demolition Landfill

This Operation Plan has been prepare in accordance with Rule .0542. Harnett County shall maintain and operate the Dunn-Erwin Construction and Demolition Landfill (CDLF), in accordance with the design and drawings approved by the North Carolina Solid Wastes Section (NCSWS), the permit to operate issued by the NCSWS, and the following requirements.

1.0 Waste Acceptance and Disposal Requirements

The new (CDLF), will accept construction/demolition debris, wastes acceptable for disposal in a land clearing-inert debris landfill, and other wastes specifically approved by the division. The CDLF will only accept waste generated in Harnett County, and will not knowingly dispose of any type of C&D waste generated within the boundaries of a unit of local government that by ordinance prohibits generators or collectors of C&D waste from disposing of such waste

Construction/demolition debris is defined in the General Statutes as waste or debris resulting solely from construction, remodeling, repair, or demolition operations on pavement, building, or other structures

Land clearing debris is defined in the rules as waste that is generated solely through land clearing activities such as stumps, trees, limbs, brush, grass and other naturally occurring vegetative matter.

Disposal of yard trash will not be allowed in the CDLF Facility. Yard trash is defined in the North Carolina General Statutes 130A-290 as "solid waste consisting solely of vegetative matter resulting from landscaping maintenance".

The new CDLF will accept asbestos waste if packaged properly in accordance with 40 CFR 61 and G.S. 150B-14(c). The waste shall be disposed of in virgin soil and at the bottom of the working face or in an area not contiguous with other disposal areas. The area shall be covered with soil immediately in a manner to avoid any airborne conditions and the disposal area shall be marked and/or the location documented in the permanent operating record of the landfill so that the waste is not disturbed by future land filling activities.

All of the yard waste received at the Dunn-Erwin Landfill Facility will be ground and given free of charge to the citizens and non-commercial entities of Harnett County. The ground yard waste will also be utilized as daily cover on the LCID cell at this facility. The remaining land clearing and inert debris materials such as

stumps, brick, block, etc. will be disposed of in the permitted LCID cell located at the Dunn-Erwin Landfill facility

1.1. The following wastes are prohibited from disposal at the CDLF:

- Containers such as tubes, drums, barrels, tanks, cans, bottles, unless they are empty and perforated to ensure that no liquid, hazardous or municipal solid waste is contained therein.
- Garbage as defined by Statute 130A-290
- All municipal solid waste (MSW).
- All industrial waste.
- All medical waste.
- Hazardous waste as defined within 15A NCAC 13A, including hazardous waste from conditionally exempt small quantity generators.
- Polychlorinated biphenyls (PCB) waste as defined in 40 CFR 761.
- Radioactive waste as defined by Statute 104E-5(14).

- All liquid wastes are banned from the CDLF facility.
  NOTES: Liquid Waste means any waste material that is determined to contain "free liquids" as defined by Methods 9095 Paint Filter Liquids Test), as described in "Test Methods for evaluating solid Wastes, Physical/Chemical methods" (EPA Pub. No.SW-846).

  Paint Filter Liquids Test:
  The test is performed by placing a 100-milliliter sample of the waste in question, in a conical, 400-micron paint filter. The waste is considered to be a liquid if any liquid from the waste passes through the filter within five minutes.

- Waste prohibited by Statute GS 130A-309.10 of the North Carolina Solid Waste Management Rules. These waste include:

  - used oil
  - yard trash
  - white goods
  - antifreeze (ethylene glycol)
  - whole scrape tires
  - lead-acid batteries

- Wastewater treatment sludges or any other waste containing organics.
- C&D waste that has been shredded, pulverized or processed to such an extent that the composition of the original waste cannot be determined, unless the waste is from a facility that received a permit from an authorized regulatory authority which specifies such activities are

inspected by the authority and that the primary purpose is recycling and reuse of the C&D material.

- The following wastes are banned from the CDLF if separate from C&D waste: light bulbs or lamps, lighting ballast or fixtures, thermostats and light switches, batteries, lead pipes, lead roof flashing, transformers, capacitors and copper chrome arsenate (CCA) and creosote treated woods.

1.2. All waste containing asbestos shall be managed in accordance with 40 CFR 61. When possible, the waste shall be placed at the bottom of the working face. Large quantities of asbestos shall be designated and located by the landfill operator. The horizontal location should be measured between two (2) permanent points and the elevation estimated and both recorded. The waste shall be covered with soil immediately upon disposal in a manner not to cause airborne materials.

1.3. Harnett County shall continue a program at the landfill for detecting and preventing the disposal of hazardous or liquid waste or any other waste that the CDLF facility is not permitted to receive. The frequency of random inspections shall be based on the type and quantity of waste received daily, and the accuracy and confidence desired in conclusions drawn from inspection observations. All incoming waste of an unidentifiable nature or origin will be inspected. This shall include but not be limited to haulers with unknown service area, to loads brought to the facility in vehicles not typically used for disposal of municipal solid waste, and to loads transported by previous would-be offenders. For waste of unidentifiable nature received from sources other than household (e.g., industrial or commercial establishments), the inspector should question the transporter about the source/composition of the materials. The program will include the following:

Landfill personnel will conduct random inspections of typical incoming loads. Inspections will occur at a designated site, adjacent to the working face of the landfill unit. The load will be carefully spread by a front-end loader with personnel trained to identify hazardous and liquid waste or any other unacceptable waste. The frequency of the random inspections will be based on the type and quantity of waste received, but not less that one inspection per week. A record will be keep of each inspection that is performed. These records will be included and maintained in the operating record of the landfill. A copy of the waste inspection record and flowchart of the random waste screening process are attached as Appendix 1.

Harnett County will provide annual training to all landfill personnel in regard to recognizing hazardous and liquid waste.

Harnett County has developed a contingency plan to properly manage identified hazardous or liquid waste. The plan involves the identification of the waste by inspection. If the inspector determines a load to be of a hazardous nature, the landfill will not accept the waste and require that hauler remove the waste from

the facility. If the inspector determines a load of waste to include wastes that should not be disposed of in the CDLF but can be disposed of in a permitted MSW Landfill, then the hauler will be required to load the waste back into his vehicle and transport the load to the MSW Transfer Facility.

2.0 Cover Material Requirements

2.1. Harnett County shall cover the disposed waste with six (6) inches of earthen material once a week, or at more frequent intervals if necessary, to control disease, vectors, fire, odors, blowing litter, and scavenging.

2.2. As an alternative to the six inches of earthen material, Harnett County may use an alternative cover (AC) that has been approved by the Solid Waste Division.

The AC will only be placed in the vicinity of the active working face and primarily during wet weather conditions to assist in alleviating the muddy conditions that impede efficient operation. The AC will not be placed in areas that have a high potential for runoff, such as perimeter slopes. A full six (6) inch layer of native soil will continue to be placed in these areas in order to promote surface water runoff.

The daily cover will reduce nuisances caused by odors, vectors, litter, etc., and will assist landfill operations during wet weather conditions. The soil component of the daily cover will create isolated pockets of waste within the cell to prevent and control landfill fires. However, as an additional precaution, a full six (6)-inch layer of soil will be used to cover the working face at least once each week. Using the AC material should not increase the potential for landfill fires, since the material will be placed in conjunction with a separate soil layer and will be predominately used in wet weather conditions.

The AC's will be placed to meet or exceed the performance criteria of an AC as outlined in Rule .1626 2 (b) by providing control of disease, vectors, fires, odors, blowing litter, and scavenging.

2.3. Harnett County shall cover all waste areas that will be inactive for more than twelve (12) months and have not reached final elevations with a minimum of one foot of intermediate cover.

3.0 Disease Vector Control

3.1. Harnett County will control the spread of disease vectors by maintaining daily cover requirements and picking up windblown trash at the end of each day.

4.0 Air Quality

4.1. Harnett County shall operate the Dunn-Erwin CDLF in compliance with all applicable requirements developed under the State Implementation Plan (SIP)

approved or promulgated by the U.S. EPA Administrator pursuant to Section 110 of the Clean Air Act, as amended. The Harnett County landfill should not be required to obtain a Title V operating permit. Currently, the Dunn-Erwin Landfill facility does not anticipate reaching an on-site volume of more than 2.5 million Megagrams of waste.

4.2. No open burning of solid waste shall be allowed at the landfill, except for the infrequent burning of land clearing debris that is generated by on-site clearing or debris from emergency clean-up operations. Any such infrequent burning will be approved by the local fire marshall and all local and state guidelines will be followed. The county will obtain all applicable permits prior to burning.

4.3. If a hot load of waste is delivered to the landfill, the driver shall not be allowed to dump the load. The driver shall be directed to a gravel or paved area West of the C&D waste area and instructed to dump the load there. The fire should be extinguished if possible and the local fire department called immediately.

If a load of waste is unknowingly a "hot" load and is discharged onto the working face, it will immediately be watered and extinguished by landfill personnel if possible and the local fire department will be called immediately. Equipment and a stockpile of soil shall be maintained in close proximity to the working face for controlling accidental fires.

The local fire department, which is approximately located 3.5 miles from the Dunn-Erwin Landfill, will also be contacted and informed of the potential fire hazards at the landfill. Arrangements will be made with the fire department to provide access to the landfill site. They will also be provided with operational information of the facility in case of emergency.

4.4. Harnett County shall provide verbal notification to the Solid Waste Division within 24 hours of a fire at the landfill and written notice within 15 days.

5.0 Access and Safety Requirements

5.1. The site is currently enclosed by a fence with access controlled by means of gates. A security check station and weigh scales is located at the landfill entrance to evaluate waste stream and proper disposal, A properly trained and certified attendant will be on duty at the site at all times while it is open for public use to insure compliance with operation requirements. Restroom and maintenance facilities currently in place at the existing site will remain operational. Access roads to the site will be of all weather construction and maintained in good condition.

5.2. Dust generated due to landfill activities will be controlled. Dust will be controlled through the application of water by truck or other approved dust control products, if necessary. Removal of mud and dirt from the roads will also

be a part of the dust control measures. Additionally, final cover will be vegetated as soon as practical in order to minimize the blowing of dust on-site.

5.3. Signs providing information on disposal procedures, the hours which the site is open for public use, the permit number, stating that no hazardous or un-permitted waste can be received without written permission, stating that no liquid waste can be received for disposal, and other pertinent information will be posted at the site entrance. Most of these signs are located at the landfill entrance, which currently provides access to the MSW transfer station and also provides access to the CDLF. Therefore traffic signs and markers shall be provided as necessary to promote an orderly traffic pattern and direct incoming vehicles to the proper dumping area (MSW or C&D). Adequate signage will be located along the access roads to direct vehicles to and from the discharge area and maintain efficient operating conditions. The scale house operator will give specific instructions to incoming waste loads as to the appropriate disposal area. A sign shall be placed in clear view of each incoming transporter, which shall read as follows:

NOTICE: RANDOM WASTE SCREENING PRACTICED HERE. WE RESERVE THE RIGHT TO INSPECT ANY LOAD OR PORTION OF A LOAD ARRIVING AT OUR FACILITY. WE WILL REJECT ALL: HAZARDOUS WASTES, PCBs, LIQUIDS AND ANY UNACCEPTABLE WASTE AS DETERMINED BY OUR MANAGEMENT. YOUR PARTICIPATION IN THIS PROGRAM IS NOT OPTIONAL!

5.4. Scavenging of solid waste is prohibited unless approved by the owner or operator and the removal is not performed on the working face.

5.5. Harnett County will be implementing a new operating procedure for managing landfill customers in 2008 in an attempt to provide a safer and more cost effective facility for the citizens of Harnett County. All customers entering the landfill are required to follow these new operating procedures while on the Landfill property. A copy of the new operating procedures is attached as Appendix 2.

6.0 Erosion and sedimentation Control Requirements

Existing and proposed erosion/sedimentation control structures include sediment basins, storm drains, temporary slope drains, check dams, and diversion ditches. Sedimentation basins will be checked after periods of significant runoff. Sediment will be removed from the basin to its original dimension when sediment accumulates to one half of design depth. The sedimentation basins, embankment, ditches, inlets and outlets will also be inspected for erosion damage. All necessary repairs will be made immediately. Any trash or debris within the riser pipes will be removed.

Stormwater will be collected by constructing benches on the finished cap at an interval of approximately 35 vertical feet. This will maintain the maximum flow length on the cap surface to approximately 140 linear feet. A series of pipes will be used to transport water from the upper benches to the lower benches and eventually to a periphery ditch that will transport the storm water to two (2) existing sediment ponds. Each pipe will be sized for the final-developed condition, since the landfill will produce peak runoff at the final-developed condition. All of the Stormwater management structures and erosion control details are shown on the closure plans.

The erosion control structures are designed and will be maintained to manage the runoff generated by the 24- hour, 10-year storm event and will conform to the requirements of the Sedimentation Pollution Control Law (15A NCAC 4).

Storm drain outlets and diversion ditches will be inspected for damage after each runoff event. Riprap will be placed in ditches and at pipe outlets to prevent erosion and washouts. Provisions for a vegetative ground cover sufficient to control erosion must be accomplished within thirty (30) working days or 120 calendar days upon completion of any phase of CDLF development. Temporary grassing will also be utilized as necessary to stabilize temporary slopes that are susceptible to erosion.

Embankment slopes shall be periodically inspected for erosion. The embankment slopes shall be mowed at a frequency sufficient to maintain a good stand of vegetation. The slopes shall be mowed once in any one (1) year period. The embankment slopes shall be re-fertilized in the second year unless vegetation growth is fully adequate. Any damaged areas will be reseeded, fertilized and mulched immediately. Seeding, fertilizing, and mulching shall be in accordance with the North Carolina Erosion and Sedimentation Control Guidelines.

7.0 Drainage control and Water Protection Requirements

7.1. Surface water from outside the operation area will be diverted from the waste area by use of perimeter ditches. The perimeter ditches direct surface water to the sedimentation basins.

7.2. There shall be no discharge of pollutants from the landfill into waters of the U.S., including wetlands, that violates any requirements of the Clean Water Act, including, but not limited to, the National Pollutant Discharge Elimination Systems (NPDES) requirements, pursuant to Section 402.

There shall be no discharge of a non-point source of pollution into waters of the U.S., including wetlands, that violates any requirement of area-wide or State-wide water quality management plan that has been approved under Section 208 or 219 of the Clean Water Act, as amended.

7.3. Solid waste shall never be disposed of in ponded water.

8.0 Record Keeping Requirements

8.1. Landfill personnel shall record and retain the following information in an operating record at the landfill, or at an alternate location that has been approved by the Division:

-Inspection of existing facilities,
-Inspection records and waste determination records,
-Training received by landfill personnel,
-Waste amounts received by weight, which includes source or generation,
-Semi-annual monitoring of ground water wells, and
-Any demonstration, certification, finding, monitoring, testing, or other analytical data required by the North Carolina Solid Waste Management Rules (15A NCAC 13B).

The CDLF obtains an annual aerial survey of all Landfill areas between April and June of each year in order to keep record of yearly contour transitions. An individual survey of the facility will be preformed within 60 days of receiving a request to do so from the Division. The results of this survey, which shall include a map and discussion of whether or not operations are being conducted in accordance with the approved design and operational plans, will be supplied to the Division within 90 days of receiving the original request.

8.2. This information shall be collected and documentation of such collection kept in the permanent record of the CDLF or at an alternate location approved by the Division. The Operating Record, this Operations Plan, and a copy of the approved design drawings and construction drawings will remain at the Dunn-Erwin Facility or approved alternate location at all times. This information will be readily available for inspection by the Solid Waste Section

9.0 Spreading and Compacting Requirements

Waste will be placed in the CDLF in lifts of approximately five (5) to ten (10) feet thick. Following placement in the initial lift, the solid waste will be compacted as densely as possible using compactors and dozers. Waste placement will be in lifts not to exceed 10 feet. In order to increase compaction, waste should be place from the down gradient to the up gradient direction when possible. The working face shall be maintained in as small an area as possible to increase compaction and to reduce the amount of daily cover required.

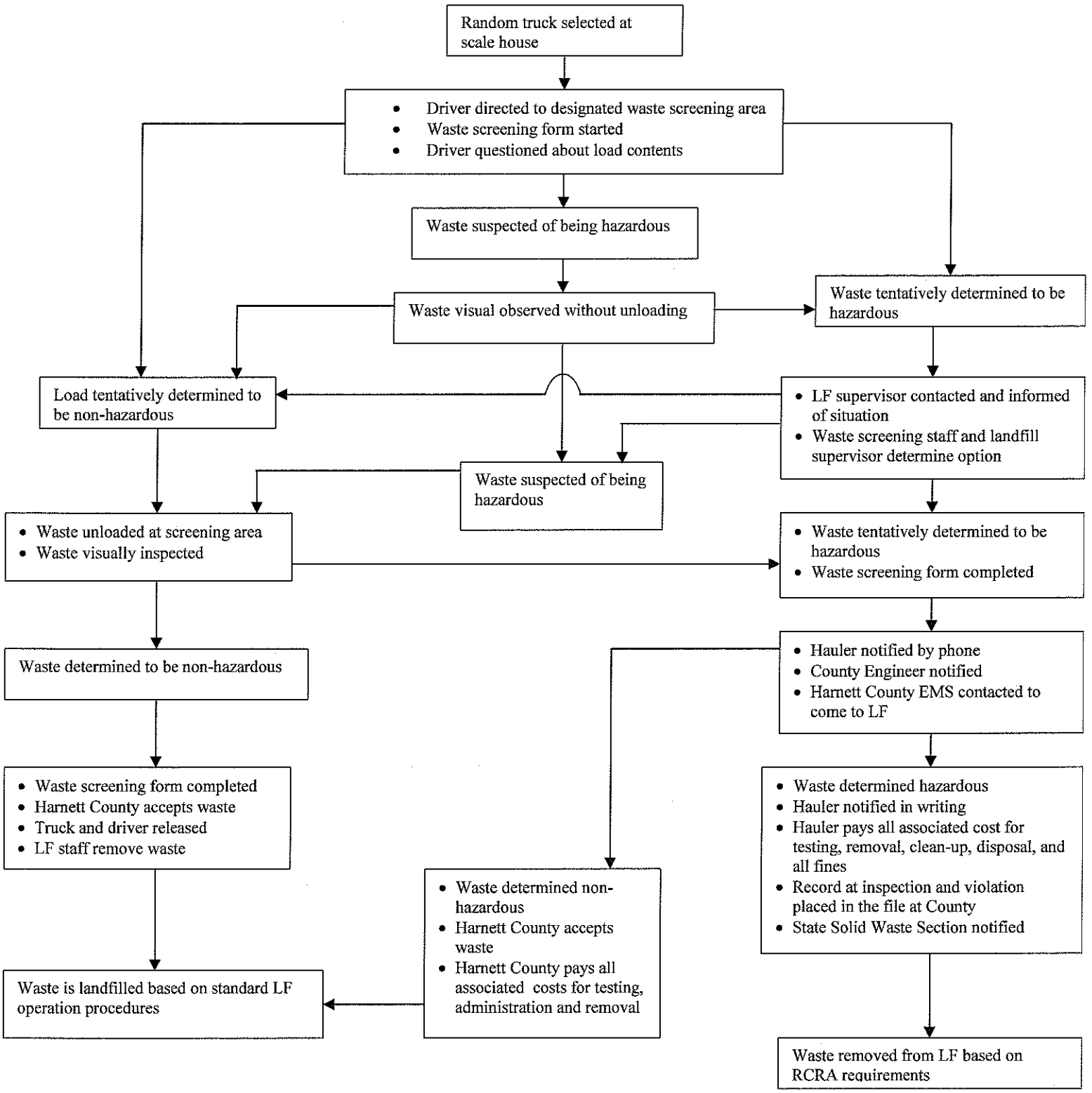
SECTION APPENDICES

APPENDIX 1

Waste Screening Flow Chart

Harnett County

Random Waste Screening Program
Decision Tree



APPENDIX 2

Landfill Operating Guidelines

EFFECTIVE 2008

Harnett County Landfill
Operating Procedures

The Harnett County Landfill's goal is to provide a safe and cost effective facility for our customers to dispose of solid waste from Harnett County. Upon entering landfill property, the following operating procedures shall be followed by all customers.

1. Harnett County Landfill personnel are the controlling authority when entering landfill property. Failure to follow these operating procedures will result in removal from landfill property.

2. Traffic gates at the scale house control when a vehicle pulls onto and leaves scales.

3. Scale attendant will process the customer's vehicle by weighing, applying applicable fees, visually screening the waste load, checking to see that all personnel in the vehicle has a safety vest, and giving instructions.

4. No more than five (5) customer vehicles will be allowed on the landfill work face at any one time (raised traffic gate and verbal instruction from the attendant will indicate when a vehicle will be allowed to leave the scales).

5. Proceed to the work face where you will back into an open space maintaining a ten (10) foot separation from other vehicles (all persons getting out of the vehicle will have a safety vest on or will be asked to leave). All customers shall follow manufactures safety procedures for unloading vehicle. Where possible, turnbuckles, or latches should be in unloading position before backing into unloading area. This should be done only if no waste will be lost in the process. At no time will any person be allowed to ride on vehicle outside of cab. It will be the responsibility of the owner of each vehicle to train employees on the proper way to unload the vehicle and provide personal protection equipment (PPE) for their employees.

6. After vehicle is unloaded, the customer will pull out of the compactor's way and secure vehicle for departure from landfill. **NO SCAVENGING** (picking up anything or looking through unloaded waste), **NO LOITERING, or CONGREGATING ON LANDFILL PREMISES.** Once the customer's vehicle is unloaded they will be required to leave the landfill.

GENERAL RULES:

- **Speed limit while on property is 15 mph.**
- **No smoking while in landfill.**
- Follow all posted rules and regulations.

- All vehicle that need to be unloaded by hand shall have sufficient employees to unload the vehicle in a timely manner
- Waste shall be unloaded in the smallest area possible (scattering of waste will not be permitted).
- Vehicles entering the landfill's working face will be in the same area as our heavy equipment. Divers need to use caution and give heavy equipment the right of way.

CLOSURE PLAN

Closure and Post-Closure Plan

Dunn-Erwin
C&D Landfill Over
Closed MSW Landfill

(Operated under NC Solid Waste Permit No. 43-02)

Prepared for:

Harnett County

Prepared By:

Clayton, Sr., P.E., Inc.
Civil and Environmental Engineering

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NORTH CAROLINA PROFESSIONAL SEAL 023909 ENGINEER C. TYRUS CLAYTON, JR.

6/27/08

PERMIT DOCUMENT
NOT FOR CONSTRUCTION

CTC Project No. 03023

June 2008

Dunn-Erwin

C&D Landfill – Phase 1

Closure and Post-Closure Plan

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SECTION 1.0
CLOSURE PLAN

1.1 OVERVIEW

This plan is intended to serve as a guide for the proposed closure of the Dunn-Erwin C&D Landfill. A formalized Closure Plan will be submitted to the Solid Waste Section of the North Carolina Department of Environment and Natural Resources Division of Waste Management (DWM) for approval prior to beginning official closure construction

1.2 MAXIMUM CLOSURE AREA AND WASTE CAPACITY

A Final Cover Grading Plan (**Drawing No. 1)** is provided as **Appendix A** of this plan as modified from the permit drawings in accordance with 15A NCAC 13B .0543. for the Dunn-Erwin C&D Landfill. Based on this drawing, the following is the estimated remaining capacity for the landfill unit to be closed under this plan.

Remaining Capacity (CY)		**Life Expectancy[3]**
Gross[1]	**Net[2]**	
86,000	65,318	2.1 years

Notes:

1. Gross capacity is based on final cover grades provided on **Drawing No. 1** and the updated existing topography as collected April 2008.
2. The net capacity is determined by pro-rated deductions for final cover soils from the gross capacity.
3. The existing life expectancy assumes accepting 20,300 tons per year with compaction rate of 2.051 tons per cubic yard. This compaction rate was based upon volume and weight data collected for the facility between June 2007 and June 2008.

1.3 FINAL COVER SYSTEM

The final cover system will consist of the following components (top-down):

- A 12-inch thick vegetative soil layer (including 6 inches of topsoil)
- A 18-inch thick layer of low permeability material ($1X10^{-5}$ cm/sec)
- A 12-inch thick intermediate cover layer (final operational cover).

The final cover system will be placed on prepared intermediate cover at a maximum slope of 3H: 1V. A surface water control device will also be incorporated into the final cover. The final cover will be vegetated upon completion of the final cover installation according to the project seeding specifications.

Construction quality assurance requirements for final cover system components can be found in **Section 1.7**. Final cover system details are shown on **Drawing No. 2**.

Placement of the low permeability soil layer shall be closely monitored for moisture and density to achieve the minimum requirements set forth in the specifications. The vegetative soil layer should receive no compaction other than that provided by the dozer tracks. Pans or other heavy equipment should not operate on the vegetative soil layer.

1.4 SURFACE WATER SYSTEMS

Precipitation falling on the cover will infiltrate into the cover or run off the cover. Short-term the run-off runs down the surface of the intermediate cover. Long-term the run-off is collected in a series of drainage breaks built into the areas covered by final cover. These drainage breaks are in the form of "tack-on" berms provided along side slopes and near the upper edge of the slopes (cap diversion berms). The "tack-on" berms are designed with a maximum slope length of approximately 150 feet (horizontally projected) such that side slope erosion potential is minimized. Water captured by the "tack-on" berms is routed toward one of the down pipes. Flow in the down pipes is routed to the base of the landfill and to the site sediment basin.

The locations of berms, and down pipes are shown on Drawing No. 1.

1.4.1 Incremental Operation

During much of the life of the landfill, surface run-off will be handled by the intermediate cover system. Operations must strive to provide operational grading that encourages run-off from the intermediate cover to drain to the perimeter channels along the perimeter berms or to area covered by final cover. Corrugated polyethylene piping (CPP) and temporary soil berms must be installed if required to accomplish this run-off routing.

1.4.2 Required Maintenance

The surface water systems must be inspected annually and immediately after every major storm. Sediment build-up in the drainage features/devices must be cleaned out on a regular basis to promote run-off. Sediments removed can be used as daily or intermediate cover.

1.5 CLOSURE SCHEDULE

Closure activities must begin on the following schedule:

- No later than 30 days after the date on which the landfill (complete facility) last receives waste and completes day to day operations;
- No later than 30 days after the date that a ten (10) acre or greater area of waste, is within 15 feet of final design grades: and
- No later than one (1) year after the most recent receipt of wastes on final outside slopes. Interim and interior slopes based on the approved facility plan included in the Site Study Application are not required for closure and shall be maintained to maintain intermediate cover and control erosion and sediment.

All closure activities shall be completed within 180 days. Exemptions and extensions may be approved by the DWM.

1.6 CLOSURE VERIFICATION

The following procedures will be implemented following closure:

- A Construction Quality Assurance (CQA) report will be submitted to the DWM. This report will describe the observations and test used before, during, and upon completion of construction to ensure that the construction materials meet the final cover design specification and the construction and certification requirements. The CQA report will contain as-built drawings.
- A signed certification from a registered Professional Engineer verifying that closure has been completed in accordance with the closure plan will be submitted to the DWM.
- Following final receipt of waste and full facility closure, at least one sign notifying all persons of the closing of the landfill (or incremental portions thereof) and that wastes are no longer accepted will be posted. Suitable land barriers will be installed as necessary at former access points to prevent new waste from being deposited
- Within 90 days, a survey plat, prepared by a Professional Land Surveyor, indicating the location and dimensions of landfill disposal areas, will be prepared.
- A notation will be recorded on the deed notifying any potential purchaser of the property that the land has been used as a landfill facility and that future use is restricted under the approved closure plan. A copy of the deed notation as recorded will be filed with the operating record.

1.7 CLOSURE SYSTEM CONSTRUCTION QUALITY ASSURANCE

Prior to the start of the official closure construction a formal Construction Quality Assurance Plan (CQA Plan) will be issued for use during the closure construction. The following testing criteria will be incorporated in that plan:

TABLE 1.1 - QA Testing Frequencies and Criteria for Clay Cap Layer

Preconstruction Qualification		
Test	**ASTM Method**	**Quantity**
Moisture Content	D2216	1/1,000 YD^3
Grain Size	D422 or D1140	1/5,000 YD^3
Atterberg Limits	D4318	1/5,000 YD^3
Laboratory Compaction	D698 - Standard	1/5,000 YD^3
Permeability	D5084	1/5,000 YD^3
***Preconstruction test samples shall be taken from the borrow source and or clay stockpiled prior to construction.**		
Construction Testing		
Test	**ASTM Method**	**Quantity**
Field Density	D2922, D1556, D2167	1/10,000 FT^2/Lift
Field Moisture	D2216, D3017, D4643	1/10,000 FT^2/Lift
Permeability	D5084	1/40,000 FT^2/Lift
Atterberg Limits	D4318	1/5,000 YD^3
Grain Size	D422 or D1140	1/5,000 YD^3
Testing Criteria		
Classification	CL, CH, ML, or MH	
Maximum Particle Size		1/2-inch diameter

If a nuclear gauge is used as the primary method for construction testing of the clay liner, the test data shall be verified by alternate methods at least once for every 25 tests performed.

Any modifications made to these testing frequencies will require prior approval from the Division of Solid Waste.

TABLE 1.2 - QA Testing Frequencies and Criteria for Vegetative Support Soil Layer

Preconstruction Qualification		
Test	**ASTM Method**	**Quantity**
Grain Size	D422 or D1140	1/5,000 YD^3
Atterberg Limits	D4318	1/5,000 YD^3
pH	D4972	1/5,000 YD^3
Organic Content	D7348	1/5,000 YD^3
***Preconstruction test samples shall be taken from the borrow source and or soil stockpiled prior to construction.**		
Testing Criteria		
Classification	CL, CH, ML, MH, OH, or OL	
pH		5-8
Organic Content		5% min
Maximum Particle Size		3-inch diameter

Any modifications made to these testing frequencies will require prior approval from the Division of Solid Waste.

SECTION 2.0
POST-CLOSURE PLAN

2.1 OVERVIEW

This Post-Closure Plan has been developed to outline steps to be taken to ensure the integrity of the landfill during its post-closure care period. The post-closure care period will last at least 30 years after final closure and, minimum, will consist of the following:

- Maintaining the integrity and effectiveness of final cover system;
- Performing groundwater and surface water monitoring;
- Maintaining run-on/run-off controls.

No public waste will remain exposed after closure of the landfill. Access to the closed site by the public will not pose a health hazard.

2.2 POST-CLOSURE CONTACT

All correspondence and questions concerning the post-closure care of the unit should be directed to:

Mr. Jerry Blanchard, General Services Manager
Harnett County General Services
900 S 9th St.
Lillington NC

2.3 POST-CLOSURE USE

After filling operations cease at the landfill and it is officially closed in accordance with the Closure Plan, the landfill will be maintained as a grassy hill. Harnett County will maintain control of the property and prevent public access to it during the post-closure period.

There may be (an) access road(s) on the final cover to allow proper maintenance during post-closure. Precise location of the access road(s) will be determined as part of operation. Low ground pressure and rubber tire vehicles will be used for maintenance.

2.4 MAINTENANCE

2.4.1 Repair of Security Control Devices

All security control devices will be inspected and maintained as necessary to ensure access to the site is controlled. Locks, vehicular gates, and fencing will be replaced if functioning improperly. Warning signs will be kept legible at all times and will be replaced if damaged by inclement weather or vandalism.

2.4.2 Erosion Damage Repair

If erosion of the final cover occurs during post-closure, the affected area will be repaired and re-seeded as necessary. If necessary, rolled erosion control products (RECPs) will be used to expedite rapid re-vegetation of slopes and to secure topsoil in place.

2.4.3 Correction of Settlement, Subsidence, and Displacement

Minimum slope of 5 percent will be maintained after settlement in order to prevent ponding and allow for proper drainage without infiltration. If vertical or horizontal displacement occurs due to differential settlement, cracks will be filled with appropriate material and final cover will be reestablished. Excessive vertical displacement is not anticipated.

2.4.4 Repair of Run-On/Run-Off Control Structures

All drainage swales, ditches, and perimeter channels will be repaired, cleaned, or realigned in order to maintain their original condition. Any culverts that are damaged will be repaired or replaced

2.4.5 Groundwater Monitoring Wells

Procedures outlined in the current Groundwater Monitoring Plan (GMP) or subsequent revision will take precedence; however, a brief description follows.

All groundwater monitoring wells have been installed with concrete pads and protective casings to prevent accidental damage by vehicles and equipment. The wells are also equipped with a locking cap to discourage vandalism. Groundwater wells will be inspected regularly (at the time of sampling) to ensure integrity. Persons inspecting a well should look at the overall condition of the well, for signs of well tampering, and cracking or degradation of the concrete pad. Should a well require replacement, the defective should be abandoned in accordance with specifications provided in the GMP Plan and a new well installed at a location that is approved by the DWM.

2.5 MONITORING PLAN

The closed unit will be monitored for a minimum of 30 years. A series of inspections will be scheduled to ensure the integrity and effectiveness of the final cover system, surface water systems, groundwater monitoring systems, and to protect human health and the environment.

2.5.1 Inspection Frequencies

Inspections to be conducted during the post-closure care period will occur regularly as shown in **Table 2.1.**

2.5.2 Quarterly Inspections

Quarterly inspections of the closed site will be conducted by Harnett County. These inspections will include examination of the security control devices for signs of deterioration or vandalism to ensure access to the site is limited to authorized persons. Each disposal area will be checked to ensure the integrity of the final cover system is maintained, erosion damage is repaired, vegetative cover persists, and that cover settlement, subsidence, and displacement are minimal. Drainage swales and channels will be cleared of litter and debris and benchmark integrity will be noted and maintained.

2.5.3 Semi-Annual Inspections

Semi-annual inspections of the site during the post-closure period will be conducted by Harnett County with attention paid to integrity and drainage of the final cover systems and condition of the groundwater monitoring systems.

A report of findings will be made to the responsible party, including recommendations for actions deemed necessary to ensure the site continues to meet the closure performance standard.

2.6 ENGINEERING CERTIFICATION

Based on Harnett County's monitoring reports, annual certifications by a registered engineer will be placed in the operating record. They will certify that the closure plan has been followed, noting discrepancies along with the corrective actions undertaken. At the end of the post-closure period, the individual certifications will be compiled into a final document and forwarded to the DWM.

TABLE 2.1: POST-CLOSURE INSPECTION FREQUENCIES

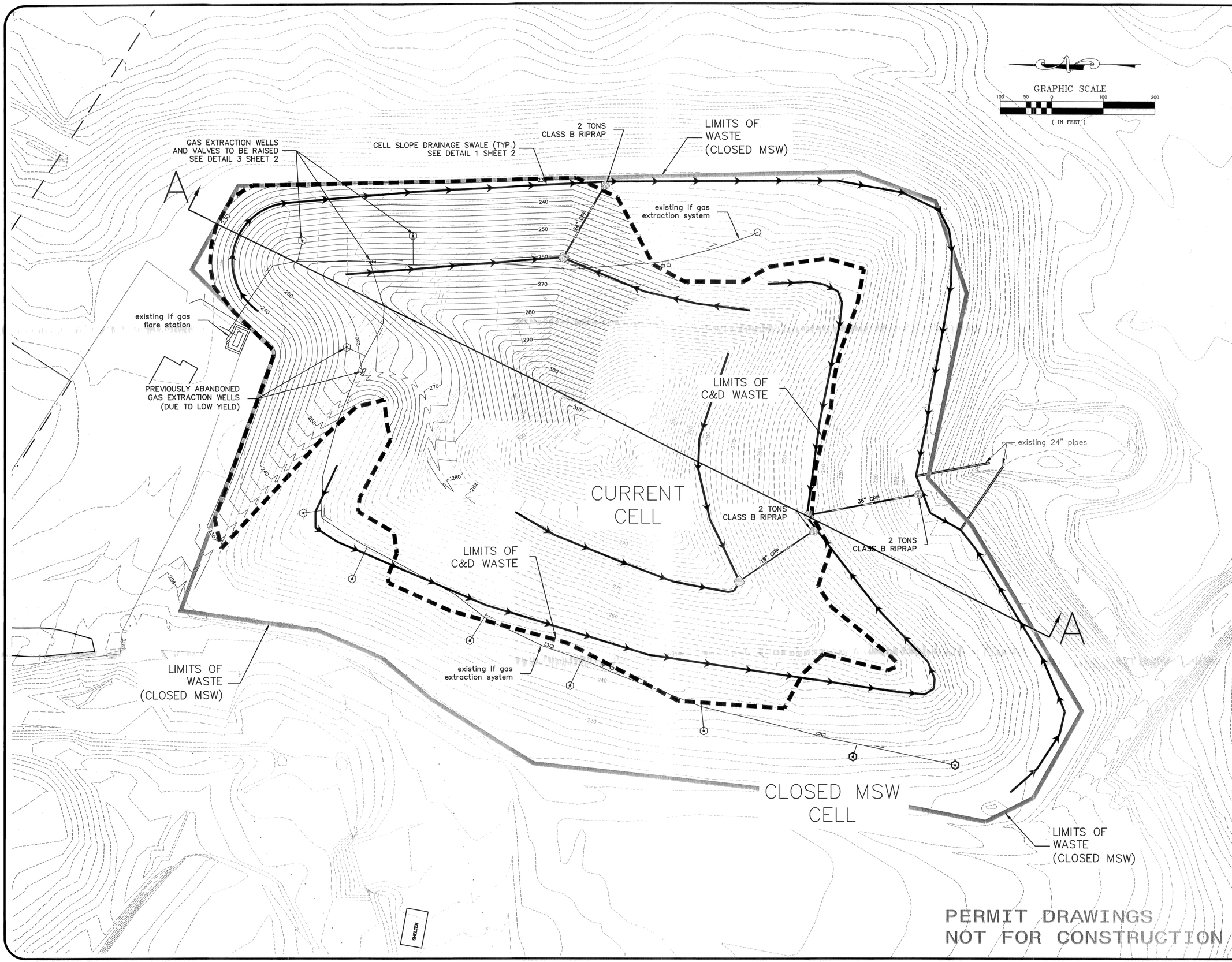
INSPECTION ACTIVITY	Year 1	Years 2- 30
Security Control Devices	Quarterly	Quarterly
Vegetative Cover Conditions	Quarterly[1]	Quarterly
Surface Water Systems	Quarterly[1]	Quarterly
Erosion Damage	Quarterly[1]	Quarterly
Cover Drainage System	Quarterly[1]	Semi-Annually
Cover Settlement, Subsidence, and Displacement	Quarterly[1]	Semi-Annually
Groundwater Monitoring System	Semi-Annually	Semi-Annually[2]
Benchmark Integrity	Annually	Annually

Notes:

1. These items will be inspected after each large storm event (i.e. ≥ 1 inch in any 24 hours).
2. Or in accordance with groundwater monitoring schedule described in the current Groundwater Monitoring Plan.

Appendix A

DELF C&D Landfill Closure Drawings



General Notes

LEGEND

- PROPOSED CONTOUR
- EXISTING CONTOUR
- CELL SLOPE DRAINAGE SWALE
- CPP PIPE
- OUTLET PROTECTION
- INLET PROTECTION
- GAS EXTRACTION WELL

No.	Revision/Issue	Date

NORTH CAROLINA PROFESSIONAL SEAL 028909 ENGINEER CYRUS CLAYTON, JR.

Signature

06/27/08
Date

Clayton, Sr., P.E., Inc.
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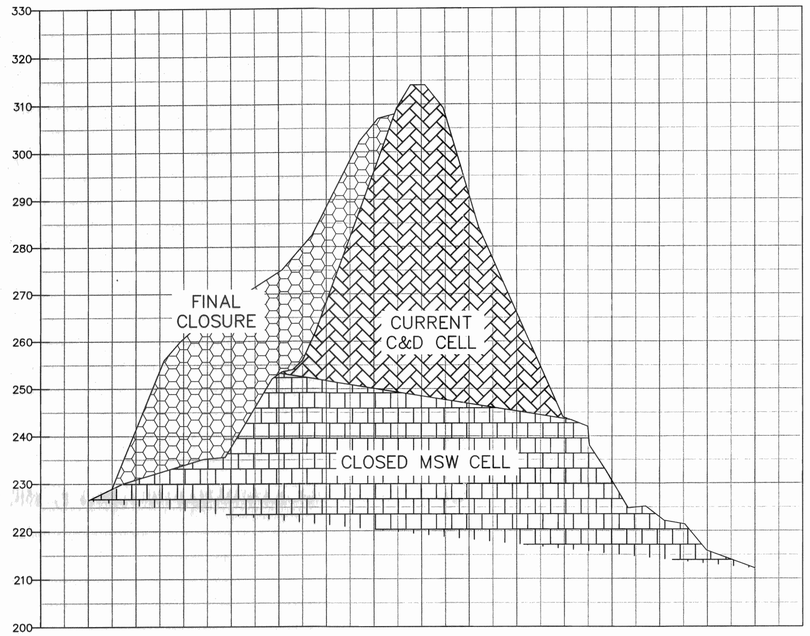
DUNN-ERWIN LANDFILL C&D PIGGYBACK CLOSURE PLAN

HARNETT COUNTY, NC

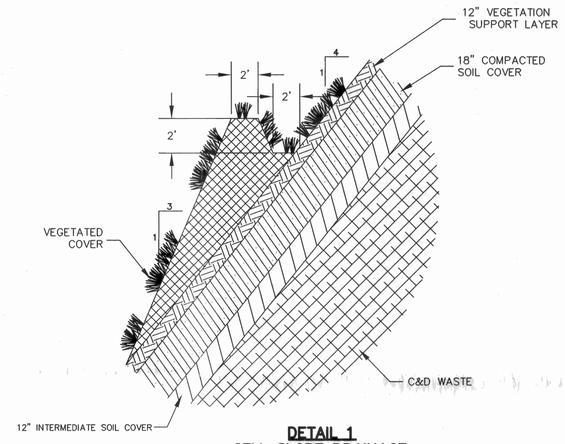
Project No:	03023	File Name:	03023MAS.DWG
Designed By:	CTC Jr.	Drawn By:	jwl
Checked By:	CTC Jr.	Proj. Eng.:	CTC

Sheet Title: CLOSURE GRADING PLAN

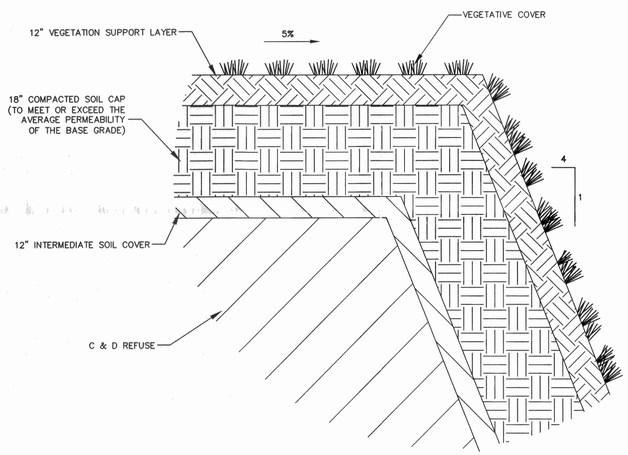
Date 06/26/08	Sheet 1 OF 2
Scale 1" = 60'	



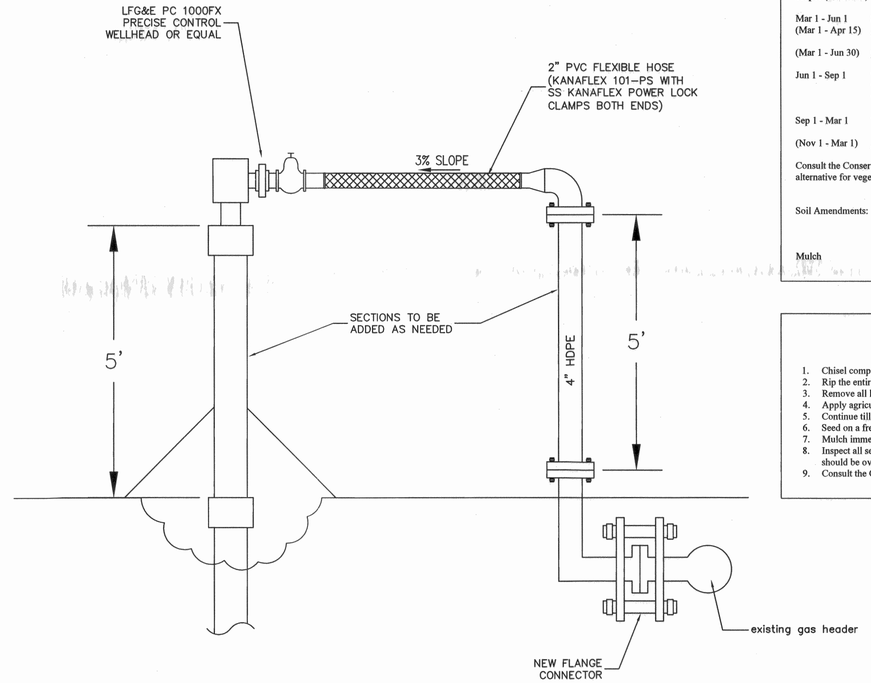
CROSS-SECTION A-A



DETAIL 1
CELL SLOPE DRAINAGE SWALE DETAIL (TYP)
NOT TO SCALE



DETAIL 3
FINAL COVER (TYPICAL)
NOT TO SCALE



DETAIL 3
GAS WELL EXTENSION DETAIL
NOT TO SCALE

TEMPORARY SEEDING SCHEDULE

Shoulders, Side Ditches, Slopes

DATE:	TYPE:	PLANTING RATES:
Aug 15 - Dec 31	Rye (grain)	120 lbs./acre
Dec 31 - May 1	Rye (grain)	120 lbs./acre Annual Lespedeza* 50 lbs./acre
May 1 - Aug 15	German Millet	40 lbs./acre

Consult the Conservation Engineer or the Soil Conservation Service for additional information concerning other alternative for vegetation of denuded areas.

* Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

Reseed according to optimum season for indicated permanent vegetation, Do not allow temporary cover to grow over 12" in height before mowing, otherwise fescue may be shaded out.

SEEDBED PREPARATION

1. Chisel compacted areas and spread topsoil 3" deep over adverse soil conditions, if available.
2. Rip the entire area to 6" depth.
3. Remove all loose rock, roots, and other obstructions leaving surface reasonably smooth and uniform.
4. Apply agricultural lime, fertilizer, and superphosphate uniformly and mix with soil (see below*).
5. Continue tillage unit a well-pulverized, firm, reasonably uniform seedbed is prepared 4" to 6" deep.
6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
7. Mulch immediately after seeding and anchor mulch.
8. Inspect all seeded areas and make necessary repairs or reseeding within the planting season, if possible. If stand should be over 60% damaged reestablish following original lime, fertilizer and seeding rates.
9. Consult the Conservation Inspector on maintenance treatment and fertilization after permanent cover is established.

*Apply: Agricultural Limestone - 2 tons/acre or 3 tons/acre in clay soils.
Fertilizer - 750 lbs/acre (10-20-10)
Mulch - 2 tons/acre (small grain straw)
Anchor - asphalt emulsion at 450 gal./acre is straw is not crimped in place.

PERMANENT SEEDING SCHEDULE

DATE:	TYPE:	PLANTING RATES:
Lawns, Shoulders, Side Ditches, Slopes (Max. 3:1)		
Aug 15 - Nov 1	Tall Fescue	300 lbs./acre
Nov 1 - Mar 1	Tall Fescue and Abruzzi Rye	300 lbs./acre 25 lbs./acre
Mar 1 - Apr 15	Tall Fescue	300 lbs./acre
Apr 15 - Jun 30	Hulled Common Bermudagrass	25 lbs./acre
Jul 1 - Aug 15	Tall Fescue and *Browntop Millet *or Sorghum - Sudan Hybrids	120 lbs./acre 35 lbs./acre 30 lbs./acre
Slopes (3:1 to 2:1)		
Mar 1 - Jun 1 (Mar 1 - Apr 15)	Sericea Lespedeza (scarified) and Add Tall Fescue	50 lbs./acre 120 lbs./acre
(Mar 1 - Jun 30)	Or Add Hulled Common Bermudagrass	25 lbs./acre
Jun 1 - Sep 1	*Tall Fescue and *Browntop Millet * or Sorghum - Sudan Hybrids	120 lbs./acre 35 lbs./acre 30 lbs./acre
Sep 1 - Mar 1	Tall Fescue	120 lbs./acre
(Nov 1 - Mar 1)	Add Abruzzi Rye	25 lbs./acre

Consult the Conservation Engineer or the Soil Conservation Service for additional information concerning other alternative for vegetation of denuded areas.

Soil Amendments: Agricultural Limestone - 2 tons/acre or 3 tons/acre in clay soils.
Fertilizer - 1000 lbs/acre
Superphosphate - 500 lbs/acre (20%)

Mulch 2 tons/acre small grain straw, anchored with asphalt emulsion at 450 gal./acre

SEEDING SPECIFICATIONS

1. Chisel compacted areas and spread topsoil 3" deep over adverse soil conditions, if available.
2. Rip the entire area to 6" depth.
3. Remove all loose rock, roots, and other obstructions leaving surface reasonably smooth and uniform.
4. Apply agricultural lime, fertilizer, and superphosphate uniformly and mix with soil (see below*).
5. Continue tillage unit a well-pulverized, firm, reasonably uniform seedbed is prepared 4" to 6" deep.
6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
7. Mulch immediately after seeding and anchor mulch.
8. Inspect all seeded areas and make necessary repairs or reseeding within the planting season, if possible. If stand should be over 60% damaged reestablish following original lime, fertilizer and seeding rates.
9. Consult the Conservation Inspector on maintenance treatment and fertilization after permanent cover is established.

PERMIT DRAWINGS
NOT FOR CONSTRUCTION

General Notes

No.	Revision/Issue	Date

NORTH CAROLINA PROFESSIONAL SEAL 028909 ENGINEER TYRUS CLAYTON, JR.

Signature

06/27/08
Date

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DUNN-ERWIN LANDFILL C&D
PIGGYBACK CLOSURE PLAN

HARNETT COUNTY, NC

Project No:	03023	File Name:	03023MAS.DWG
Designed By:	CTC Jr.	Drawn By:	jwl
Checked By:	CTC Jr.	Proj. Eng.:	CTC
Sheet Title	DETAILS		
Date	06/26/08	Sheet	2 OF 2
Scale	NTS		